Application No.: 09/812,123 Docket No.: HO-P02138US0

COMPLETE LISTING OF CLAIMS IN ASCENDING ORDER WITH STATUS INDICATOR

- 1. (Currently amended) A microfluidic device in the form of a disc comprising onc, two or more MS-ports for the presentation of an MS-analyte presentation unit forto an EDI-MS apparatus, said unit comprising an essentially planar support plate which on one side has one, two or more ports (wherein each of said MS-ports) comprising being part of a microchannel structure comprising an inlet port for a sample, wherein each of said microchannel structures are oriented radially in the disc and arranged annularly around a spinning axis of the disc; and comprising –an area (EDI area) for presenting the MS-analyte to a mass spectrometer, said EDI area comprising a layer I of conducting material, characterized in that layer (I) has having a conductive connection and/or that there is a calibrator area in the proximity of the MS-port.
- 2. (Currently amended) The microfluidic device of claim 1, **characterized** in that wherein there are two or more EDI areas and in that layer (I) of each EDI area is part of a common continuous conducting layer.
- 3. (Currently amended) The microfluidic device of claim 1, eharacterized wherein in that layer (I) is covered by a non-conducting layer (layer II).
- 4. (Currently amended) The microfluidic device of claim +3, wherein characterized in that there are two or more EDI areas and in that layer (II) of each EDI area is part of a common continuous non-conducting layer.
- 5. (Currently amended) The microfluidic device of claim 1, wherein characterized in that layer (I) is exposed in the MS-port at the surface of the EDI area, or embedded in the EDI area below said surface, or exposed at the bottom of the device.
- 6. (Currently amended) The microfluidic device of claim 1, wherein characterized in that there are two or more the microchannel structures, each of which comprising an EDI area and beingare covered by a lid which may or may not have an opening above an EDI area.

25316945.1

Application No.: 09/812,123 Docket No.: HO-P02138US0

7. (Currently amended) The microfluidic device of claim 6, **characterized** in that wherein said lid is removable.

8. (Currently amended) The microfluidic device of claim 6, characterized in that wherein said lid comprises a common conducting layer including the connection for electricity and an opening above each of the EDI areas.

9. Canceled

- 10. (Currently amended) The microfluidic device of claim 91, characterized in that each of said microchannel structures comprises a wherein the sample inlet port is at an inner position and the MS-port is at an outer position in each of said microchannel structures.
- 11. (Currently amended)The microfluidic device of claim 1, characterized in that wherein EDI is LDI. such as MALDI.
- 12. (New) The microfluidic device of claim 11, wherein LDI is MALDI.

25316945.1 10